

Abstract

SHAPE MEMORY ALLOY ACTUATOR

- 5 A shape memory alloy actuator comprising a body (1) connected through an arm (5) with an activating member (15), the body (1) being arranged for rotation around a pivot (2) and connected to a first wire (9) and a second wire (10) of a shape memory alloy such as nitinol and to a biasing means such as a tension spring (6) such that heating and therefore shortening of the wire (10) rotates
- 10 the body (1) counter-clockwise such that the tension spring (6) is in its cocked position while heating (shortening) of the wire (9) and cooling (lengthening) of the wire (10) to the position shown in 10a rotates the body (1) clockwise past a balance point for the tension spring (16) whereafter the body (1) rotates further clockwise under the influence of the tension spring (6), thereby exerting a
- 15 relatively powerful actuation of the activating member (15), the whole cyclus being repeated by heating wire (10) causing it to shorten and rotate the body (1) counter-clockwise until the spring (6) is cocked again.